

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

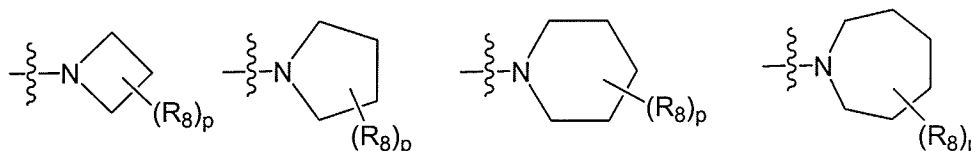
Listing of Claims

1-2. (Cancelled)

3. (Currently amended) A compound according to claim-1 ~~42~~, wherein R_2 is selected from the group consisting of a substituted or unsubstituted 3, 4, 5, 6 or 7 membered ring wherein at least one substituent is selected from the group consisting of a primary, secondary or tertiary amine, a heterocycloalkyl ~~comprising~~ having a nitrogen ring atom, and a heteroaryl ~~comprising~~ having a nitrogen ring atom.

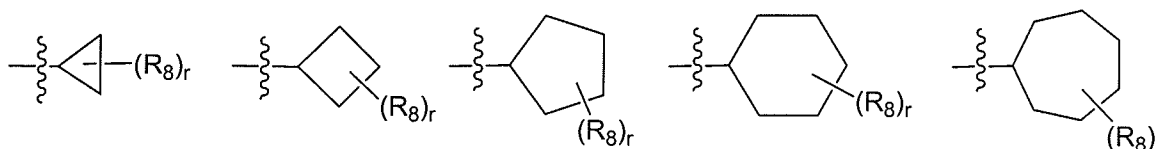
4-6. (Cancelled)

7. (Currently amended) A compound according to claim-1 ~~42~~, wherein -UV is selected from the group consisting of



wherein p is 1-12 and each R_8 is independently selected from the group consisting of halo, perhalo(C_{1-10})alkyl, CF_3 , cyano, nitro, hydroxy, alkyl, aryl, heteroaryl, aminosulfonyl, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, aryloxy, heteroaryloxy, arylalkyl, heteroarylalkyl, cycloalkyl, heterocycloalkyl, amino, thio, alkoxy, carbonyl group, imino group, sulfonyl group and sulfinyl group, each substituted or unsubstituted, with the proviso that at least one R_8 provides the basic nitrogen of V.

8. (Original) A compound according to claim 7, wherein at least one R_8 is a primary, secondary or tertiary amine.
9. (Currently amended) A compound according to claim 7, wherein at least one R_8 is a substituted or unsubstituted heterocycloalkyl ~~comprising~~ having a nitrogen ring atom or a substituted or unsubstituted heteroaryl ~~comprising~~ having a nitrogen ring atom.
10. (Original) A compound according to claim 7, wherein at least one R_8 is selected from the group consisting of $-NH_2$, $-NH(C_{1-5} \text{ alkyl})$, $-N(C_{1-5} \text{ alkyl})_2$, piperazine, imidazole, and pyridine.
11. (Currently amended) A compound according to claim ~~1~~ 42, wherein $-UV$ is selected from the group consisting of



wherein r is 1-13 and each R_8 is independently selected from the group consisting of halo, perhalo(C_{1-10})alkyl, CF_3 , cyano, nitro, hydroxy, alkyl, aryl, heteroaryl, aminosulfonyl, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, aryloxy, heteroaryloxy, arylalkyl, heteroarylalkyl, cycloalkyl, heterocycloalkyl, amino, thio, alkoxy, carbonyl group, imino group, sulfonyl group and sulfinyl group, each substituted or unsubstituted, with the proviso that at least one R_8 provides the basic nitrogen of V.

12. (Original) A compound according to claim 11, wherein at least one R_8 is a primary, secondary or tertiary amine.
13. (Currently amended) A compound according to claim 11, wherein at least one R_8 is a substituted or unsubstituted heterocycloalkyl ~~comprising~~ having a nitrogen ring atom or a substituted or unsubstituted heteroaryl ~~comprising~~ having a nitrogen ring atom.

14. (Original) A compound according to claim 11, wherein at least one R_8 is selected from the group consisting of $-NH_2$, $-NH(C_{1-5} \text{ alkyl})$, $-N(C_{1-5} \text{ alkyl})_2$, piperazine, imidazole, and pyridine.

15. (Currently amended) A compound according to claim-1 42, wherein R_2 is selected from the group consisting of 3-amino-piperidin-1-yl, 3-aminomethyl-pyrrolidin-1-yl, azetidin-1-yl, 3-aminoazetidin-1-yl, pyrrolidin-1-yl, 3-aminocyclopent-1-yl, 3-aminomethylcyclopent-1-yl, 3-aminomethylcyclohex-1-yl, hexahydroazepin-1-yl, 3-aminohexahydroazepin-1-yl, 3-aminocyclohex-1-yl, piperazin-1-yl, homopiperazin-1-yl, 3-amino-pyrrolidin-1-yl, and R-3-aminopiperidin-1-yl, each substituted or unsubstituted.

16 - 18. (Cancelled)

19. (Currently amended) A compound according to claim-1 42, wherein the 1 atom separation provided by Z is a carbon atom.

20. (Currently amended) A compound according to claim-1 42, wherein the 1 atom separation provided by Z is an oxygen atom.

21. (Currently amended) A compound according to claim-1 42, wherein the 1 atom separation provided by Z is a nitrogen atom.

22. (Cancelled)

23. (Currently amended) A compound according to claim-1 42, wherein Z is selected from the group consisting of $-CH_2-$, $-C(O)-$, $-C(S)-$, $-C(NH)-$, $-C(NR_9)-$, $-O-$, $-N(H)-$, $-N(R_9)-$, and $-S-$, wherein R_9 is hydrogen or is selected from the group consisting of alkyl, cycloalkyl, heterocycloalkyl, arylalkyl, heteroarylalkyl, bicycloaryl, and heterobicycloaryl, each substituted or unsubstituted.

24-25. (Cancelled)

26. (Currently amended) A compound according to claim-1 42, wherein R_m is a substituted phenyl.

27. (Currently amended) A compound according to claim-1 42, wherein R_m is selected from the group consisting of (2-cyano)phenyl, (3-cyano)phenyl, (2-hydroxy)phenyl, (3-hydroxy)phenyl, (2-alkenyl)phenyl, (3-alkenyl)phenyl, (2-alkynyl)phenyl, (3-alkynyl)phenyl, (2-nitro)phenyl, (3-nitro)phenyl, (2-carboxy)phenyl, (3-carboxy)phenyl, (2-carboxamido)phenyl, (3-carboxamido)phenyl, (2-sulfonamido)phenyl, (3-sulfonamido)phenyl, (2-tetrazolyl)phenyl, (3-tetrazolyl)phenyl, (2-aminomethyl)phenyl, (3-aminomethyl)phenyl, (2-amino)phenyl, (3-amino)phenyl, (2-hydroxymethyl)phenyl, (3-hydroxymethyl)phenyl, (2-phenyl)phenyl, (3-phenyl)phenyl, (2-CONH₂)phenyl, (3-CONH₂)phenyl, (2-CONH(C₁₋₇)alkyl)phenyl, (3-CONH(C₁₋₇)alkyl)phenyl and (2-CO₂(C₁₋₇)alkyl)phenyl, each substituted or unsubstituted.

28. (Currently amended) A compound according to claim-1 42, wherein R_1 is -OR₁₁, where R₁₁ is a substituted aryl.

29. (Currently amended) A compound according to claim-1 42, wherein Z is a carbonyl.

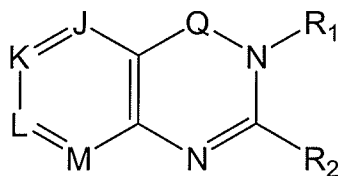
30. (Currently amended) A compound according to claim-1 42, wherein R_1 is selected from the group consisting of -(CH₂)-(2-cyano)phenyl, -(CH₂)-(3-cyano)phenyl, -(CH₂)-(2-hydroxy)phenyl, -(CH₂)-(3-hydroxy)phenyl, -(CH₂)-(2-alkenyl)phenyl, -(CH₂)-(3-alkenyl)phenyl, -(CH₂)-(2-alkynyl)phenyl, -(CH₂)-(3-alkynyl)phenyl, -(CH₂)-(2-nitro)phenyl, -(CH₂)-(3-nitro)phenyl, -(CH₂)-(2-carboxy)phenyl, -(CH₂)-(3-carboxy)phenyl, -(CH₂)-(2-carboxamido)phenyl, -(CH₂)-(3-carboxamido)phenyl, -(CH₂)-(2-sulfonamido)phenyl, -(CH₂)-(3-sulfonamido)phenyl, -(CH₂)-(2-tetrazolyl)phenyl, -(CH₂)-(3-tetrazolyl)phenyl, -(CH₂)-(2-aminomethyl)phenyl, -(CH₂)-(3-aminomethyl)phenyl, -(CH₂)-(2-amino)phenyl, -(CH₂)-(3-amino)phenyl, -(CH₂)-(2-hydroxymethyl)phenyl, -(CH₂)-(3-hydroxymethyl)phenyl, -(CH₂)-(2-phenyl)phenyl, -(CH₂)-(3-phenyl)phenyl, -(CH₂)-(2-CONH₂)phenyl,

$-(CH_2)-(3-CONH_2)phenyl$, $-(CH_2)-(2-CONH(C_{1-7})alkyl)phenyl$,
 $-(CH_2)-(3-CONH(C_{1-7})alkyl)phenyl$, $-(CH_2)-(2-CO_2(C_{1-7})alkyl)phenyl$ and
 $-(CH_2)-(3-CO_2(C_{1-7})alkyl)phenyl$ each substituted or unsubstituted.

31. (Currently amended) A compound according to claim ~~1~~ 42, wherein R_1 is selected from the group consisting of $-(C_1)alkyl-aryl$, $-O-aryl$, $-(S)-aryl$, $-C(O)-aryl$, $-C(S)-aryl$, $-S(O)-aryl$, $-SO_2-aryl$ and $-C(NR_9)-aryl$ wherein R_9 is hydrogen or is selected from the group consisting of alkyl, cycloalkyl, heterocycloalkyl, arylalkyl, heteroarylalkyl, bicycloaryl, and heterobicycloaryl, each substituted or unsubstituted, ~~each substituted or unsubstituted.~~

32-41. (Cancelled)

42. (Currently amended) A compound of Formula XX:



XX

wherein

Q is CO;

J, K, L, and M are each independently ~~selected from the group of~~ CR_{12} and N;

R_1 is $-ZR_m$, where Z is a moiety providing 1 atom separation between R_m and the ring to which R_1 is attached, and $-R_m$ is an aryl substituted with a substituent selected from the group consisting of $(C_{1-10})alkyl$, $(C_{3-12})cycloalkyl$, hetero $(C_{3-12})cycloalkyl$, aryl $(C_{1-10})alkyl$, heteroaryl $(C_{1-5})alkyl$, $(C_{9-12})bicycloaryl$, hetero $(C_{4-12})bicycloaryl$, carbonyl $(C_{1-3})alkyl$, thiocarbonyl $(C_{1-3})alkyl$, sulfonyl $(C_{1-3})alkyl$, sulfinyl $(C_{1-3})alkyl$, imino $(C_{1-3})alkyl$, amino, aryl, heteroaryl, hydroxy, alkoxy, aryloxy, heteroaryloxy, carbonyl, cyano, nitro, halo, imino, sulfonyl and sulfinyl groups;

R_2 is -UV, where U is a moiety providing 3 atom separation between V and the ring to which R_2 is attached and;

U is selected from the group consisting of -CH₂-, -CH₂CH₂-, -CH₂CH₂CH₂-, -C(O)-, -CH₂C(O)-, -C(O)CH₂-, -CH₂-C(O)CH₂-, -C(O)CH₂CH₂-, -CH₂CH₂C(O)-, -O-, -OCH₂-, -CH₂O-, -CH₂OCH₂-, -OCH₂CH₂-, -CH₂CH₂O-, -N(CH₃)-, -NHCH₂-, -CH₂NH-, -CH₂NHCH₂-, -NHCH₂CH₂-, -CH₂CH₂NH-, -NH-C(O)-, -NCH₃-C(O)-, -C(O)NH-, -C(O)NCH₃-, -NHC(O)CH₂-, -C(O)NHCH₂-, -C(O)CH₂NH-, -CH₂NHC(O)-, -CH₂C(O)NH-, -NHCH₂C(O)-, -S-, -SCH₂-, -CH₂S-, -SCH₂CH₂-, -CH₂SCH₂-, -CH₂CH₂S-, -C(O)S-, -C(O)SCH₂-, -CH₂C(O)S-, -C(O)CH₂S-, -CH₂SC(O)-, -CHR₉-, -C(R₉)(R₉)-, -N(H)-, -N(R₉)-, (C₃₋₇)cycloalkyl, (C₃₋₆)heterocycloalkyl, azetidin-1-yl, pyrrolidin-1-yl, piperidin-yl and azepan-1-yl, each unsubstituted or substituted with a substituent selected from the group consisting of alicyclic, aliphatic, alkyl, amino, aminoalkyl, aromatic, aryl, bicycloalkyl, bicycloaryl, carbamoyl, carbocyclyl, carboxyl, cycloalkyl, halo, heterobicycloalkyl, heteroaryl, heterobicycloaryl, heterocycloalkyl, hydroxy, nitro, oxaalkyl, and oxoalkyl moieties, and monovalent radicals derived from aldehydes, amides, esters and ketones;

each R₉ is independently hydrogen or selected from the group consisting of alkyl, cycloalkyl, heterocycloalkyl, arylalkyl, heteroarylalkyl, bicycloaryl, and heterobicycloaryl, each unsubstituted or substituted with a substituent selected from the group consisting of alicyclic, aliphatic, alkyl, amino, aminoalkyl, aromatic, aryl, bicycloalkyl, bicycloaryl, carbamoyl, carbocyclyl, carboxyl, cycloalkyl, halo, heterobicycloalkyl, heteroaryl, heterobicycloaryl, heterocycloalkyl, hydroxy, nitro, oxaalkyl, and oxoalkyl moieties, and monovalent radicals derived from aldehydes, amides, esters and ketones;

V comprises is selected from the group consisting of a primary, secondary or tertiary amine, a heterocycloalkyl comprising having a nitrogen ring atom, or and a heteroaryl comprising having a nitrogen ring atom wherein the amine, heterocycloalkyl or heteroaryl comprises a basic nitrogen atom that is capable of interacting with a carboxylic acid side chain of an active site residue of a protein; and

each R₁₂ is hydrogen or is independently selected from the group consisting of halo, perhalo(C₁₋₁₀)alkyl, CF₃, alkyl, aryl, heteroaryl, aminosulfonyl, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, aryloxy, heteroaryloxy, arylalkyl, heteroarylalkyl, cycloalkyl,

heterocycloalkyl, amino, thio, cyano, nitro, alkoxy, a carbonyl group, imine group, sulfonyl group and sulfinyl group, each ~~substituted or unsubstituted~~ or substituted with one or more substituents selected from the group consisting of alicyclic, aliphatic, alkyl, amino, aminoalkyl, aromatic, aryl, bicycloalkyl, bicycloaryl, carbamoyl, carbocyclyl, carboxyl, cycloalkyl, halo, heterobicycloalkyl, heteroaryl, heterobicycloaryl, heterocycloalkyl, hydroxy, nitro, oxaalkyl, and oxoalkyl moieties, and monovalent radicals derived from aldehydes, amides, esters and ketones.

43-54. (Cancelled)

55. (Original) A compound according to claim 42, wherein K is CR₁₂, where R₁₂ is independently selected from the group consisting of halo, perhalo(C₁₋₁₀)alkyl, CF₃, alkyl, aryl, heteroaryl, aminosulfonyl, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, aryloxy, heteroaryloxy, arylalkyl, heteroarylalkyl, cycloalkyl, heterocycloalkyl, amino, thio, cyano, nitro, alkoxy, a carbonyl group, imine group, sulfonyl group and sulfinyl group, each substituted or unsubstituted.

56. (Original) A compound according to claim 42, wherein K is CR₁₂, where R₁₂ is independently selected from the group consisting of halo, perhalo(C₁₋₁₀)alkyl, CF₃, cyano, nitro, alkyl, aryloxy, heteroaryloxy, amino, and alkoxy, each substituted or unsubstituted.

57. (Original) A compound according to claim 42, wherein K is CR₁₂, where R₁₂ is independently selected from the group consisting of heteroaryl, aminosulfonyl, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, aryl, arylalkyl, heteroarylalkyl, cycloalkyl, heterocycloalkyl, thio, a carbonyl group, imine group, sulfonyl group and sulfinyl group, each substituted or unsubstituted.

58. (Original) A compound according to claim 42, wherein K is CR₁₂, where R₁₂ is independently selected from the group consisting of chloro, bromo, fluoro, iodo, methoxy, morpholin-4-yl, and pyrrolidin-1-yl, each substituted or unsubstituted.

59. (Original) A compound according to claim 42, wherein L is CR₁₂, where R₁₂ is independently selected from the group consisting of halo, perhalo(C₁₋₁₀)alkyl, CF₃, alkyl, aryl, heteroaryl, aminosulfonyl, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, aryloxy, heteroaryloxy, arylalkyl, heteroarylalkyl, cycloalkyl, heterocycloalkyl, amino, thio, cyano, nitro, alkoxy, a carbonyl group, imine group, sulfonyl group and sulfinyl group, each substituted or unsubstituted.

60. (Original) A compound according to claim 42, wherein L is CR₁₂, where R₁₂ is independently selected from the group consisting of halo, perhalo(C₁₋₁₀)alkyl, CF₃, cyano, nitro, alkyl, aryloxy, heteroaryloxy, amino, morpholin-4-yl, and pyrrolidin-1-yl, and alkoxy, each substituted or unsubstituted.

61. (Original) A compound according to claim 42, wherein K and L are independently CR₁₂, where R₁₂ is independently selected from the group consisting of halo, perhalo(C₁₋₁₀)alkyl, CF₃, cyano, nitro, alkyl, aryl, heteroaryl, aminosulfonyl, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, aryloxy, heteroaryloxy, arylalkyl, heteroarylalkyl, cycloalkyl, heterocycloalkyl, amino, thio, alkoxy, a carbonyl group, imine group, sulfonyl group and sulfinyl group, each substituted or unsubstituted.

62-114. (Cancelled)